

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) An inclination measuring device comprising:
inertial sensors in communication with a central processing unit;
wherein said an inclination tracking measuring device is configured to pass over
the object whose dynamically map the angle of inclination is to be mapped of a person's
trunk, said object having a plurality of elements; and
wherein said inertial sensors comprise at least one of a group including a plurality
of gyros, a two-axis inclinometer and a plurality of accelerometers.
a sensor probe in communication with said inclination tracking device, said sensor
probe configured to sense the position of each of said plurality of elements.
2. (Cancelled)
3. (Currently amended) The inclination measuring device according to claim 1, further
comprising a sensor probe in communication with said processing unit, said sensor probe
adapted to measure the distance travelled by the inclination measuring device; and wherein said
sensor probe is fixed in relation to said inertial sensors ~~inclination tracking device~~.
4. (Currently amended) The inclination measuring device according to claim 3, wherein
said sensor probe comprises optical ~~sensors~~ navigators in communication with said central
processing unit, the central processing unit being adapted for image processing and
communication.

5. (Currently amended) The inclination measuring device according to claim 1, further comprising a tracking device in communication therewith, ~~wherein said sensor probe is configured to be removable from said inclination tracking device and is configured to be attachable to at least one finger of a user's hand.~~

6. (Cancelled)

7. (Currently amended) The inclination measuring device according to claim ~~5~~4, wherein said ~~inclination~~ tracking device comprises one of a group of devices ~~for calculating the angles of inclination~~ including ~~gyroscopic inclinometer device, inclinometer, accelerometer, a magnetic field generator and Optical 3D tracking systems.~~

8. (Currently amended) The inclination measuring device according to claim 1 ~~wherein said inclination tracking device comprises a processing unit and~~ further comprising at least one of a group of devices including a data storage device and a display screen in communication with said central processing unit.

9. (Currently amended) The inclination measuring device according to claim ~~8~~1, ~~wherein said inclination tracking device comprises~~ further comprising a transmitting device for transmitting data to an external source.

10. (Currently amended) The inclination measuring device according to claim ~~8~~1, ~~wherein said inclination tracking device comprises~~ further comprising an inductor in communication with said processing unit for supplying power via a wireless connection to a unit for recharging the inclination measuring device.

11. (Cancelled)

12. (Currently amended) The inclination measuring device according to claim 81, wherein said central processing unit is programmed to record data and compute ~~including maximal-trunk rotation-inclination~~ measurements of at least one of group of vertebrae, including the upper thoracic, mid-thoracic, and lumbar regions of the spine.

13. (Original) The inclination measuring device according to claim 12, wherein said processing unit is programmed to compute and display the data showing at least one of a group including Coronal, Sagittal and Apical views of the spine.

14. (Cancelled)

15. (Currently amended) The inclination measuring device according to claim ~~4~~5, wherein ~~said sensor-probe~~ said central processing unit is configured to ~~record~~ compute at least one of a group comprising the vertebral level of the trunk ~~rotation~~ inclination measurements, the direction of inclination of each vertebrae, the difference in height between left and right of each vertebrae and the length of the spine.

16. (Currently amended) The inclination measuring device according to claim 1, wherein said inclination measuring device is configured to ~~measure~~ compute the angular deviation ~~irrespective of the position of object~~ the trunk being measured.

17. (Currently amended) The inclination measuring device according to claim 1, ~~wherein said inclination-tracking device comprises~~ further comprising a substantially rectangular housing having an indentation formed in the center of one edge of said housing.

18. (Currently amended) The inclination measuring device according to claim 1, ~~wherein said inclination-tracking device comprises~~ further comprising a pair of ~~tracking-~~ moving devices

attached on either side of said indentation, along the bottom edge of said rectangular housing
said element, moving devices adapted to stay on track and glide over the person's back.

19. (Currently amended) The inclination measuring device according to claim 7, ~~wherein said inclination tracking device comprises~~ further comprising markers configured to be used in conjunction with said Optical 3D tracking systems to identify and calculate inclination angles of the vertebrae.

20. (New) An inclination measuring device comprising:
inertial sensors in communication with a central processing unit,
wherein said inclination measuring device configured to dynamically map the angle of inclination of an object, said object having a plurality of elements, and
wherein said inertial sensors comprise at least one of a group including a plurality of gyros, a two-axis inclinometer and a plurality of accelerometers.

21. (New) The inclination measuring device according to claim 20, further comprising a sensor probe in communication with said processing unit, said sensor probe adapted to measure the distance travelled by the inclination measuring device, wherein said sensor probe is fixed in relation to said inertial sensors, and wherein said sensor probe comprises optical navigators in communication with said central processing unit, the central processing unit being adapted for image processing and communication.